

Stockpile
report
to the
Congress
July-September 1976

March 1977



General Services Administration
Federal Preparedness Agency



General Services Administration
Federal Preparedness Agency
Director, Leslie W. Bray, Jr.

UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION
WASHINGTON, DC 20405



March 18, 1977

Honorable Walter F. Mondale
President of the Senate


Honorable Thomas P. O'Neill, Jr.
Speaker of the House of Representatives

Sirs:

In accordance with Section 4 of the Strategic and Critical Materials Stock Piling Act, we are submitting the Stockpile report to the Congress for July-September 1976.

A statistical supplement to this report was forwarded to the Speaker of the House of Representatives on January 13, 1977, and to the President of the Senate on January 24, 1977.

Sincerely,


LESLIE W. BRAY, JR.
Director
Federal Preparedness Agency

Keep Freedom in Your Future With U.S. Savings Bonds

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HIGHLIGHTS

This report covers the principal activities in stockpile planning and management during July 1 through September 30, 1976, under the provisions of the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 *et seq.*). Semi-annual reports will be resumed with the next report. This report covers the transition quarter between FY 1976 and FY 1977 created by a change in fiscal year periods from July 1 through June 30 to October 1 through September 30.

The President approved new national policies concerning the United States stockpile of strategic and critical materials during August 1976 upon advice from the National Security Council. Key elements of the new policy are that (1) planning will be based on the first three years of an emergency, (2) civilian needs will be provided for, and (3) defense and civilian requirements will be estimated separately.

Effective October 1, 1976, there will be additions and deletions in the list of strategic and critical materials, and "goals" will replace "objectives." Stockpile objectives in this report refer to the difference between estimated available supply and estimated requirements of materials during the first year of a war of indefinite duration. The new goals will

differ from objectives not only in that the goals will be based on planning for the first three years of a war of indefinite duration, but also in that they will be more flexible and will change when there are new developments in data, technology, and other domestic and international events that would rapidly make the static objectives obsolete. Goals, unlike objectives, will not carry the implication of planned commitments by the United States to buy or sell any specific quantities of materials in any specific time frame. Movement toward goals will be accomplished incrementally through the development of an Annual Materials Plan for acquisition and disposal, taking into account market and other economic conditions, international events, and budgetary considerations.

As of September 30, 1976, the estimated market value of strategic materials held in Government inventories amounted to \$7.5 billion of which \$1.5 billion was held against objectives, and \$6.0 billion was in excess.

Disposals for the July-September 1976 period totaled \$27.0 million. Approximately \$20.8 million were from National and Supplemental Stockpiles, \$5.4 million from the Defense Production Act inventory, and \$0.8 million from "other sales."

PREFACE

The Federal Preparedness Agency of the General Services Administration recently chaired a one-year interagency study of stockpiling policies and procedures. The issues analyzed and the procedures proposed were presented to the National Security Council (NSC) in August 1976. Based upon advice of the NSC, the President issued new stockpile policy guidance that will substantially change the present stockpile.

The new policy calls for a materials stockpile capable of supporting United States defense requirements:

- during a major war;
- over a three-year period;
- assuming large-scale industrial mobilization (and the associated increased materials demands); and
- providing at the same time for a broad range of basic civilian economic needs to ensure the health and vitality of the wartime economy.

An important procedural change is the "variable-confidence level" approach. In this approach:

- Materials required during a war period are specifically identified in three groups (Defense, Essential Civilian, and General Civilian).
- The planning factors used to estimate the supply sources and

amounts available can be varied for the different requirement groups.

- Conservative factors can be used for the defense portion of the requirements with more moderate factors for the other requirements.
- Separate estimates for each year of an assumed war and a relative priority based upon the three groups can also be used.

In the planning process, provisions have been made to:

- maintain current data and planning factors;
- develop an annual plan for acquisition and disposal—the "Annual Materials Plan"—that will be responsive to changes in national security planning, market and other economic conditions, international events, and budgetary considerations; and
- review stockpile policy guidance every four years, or sooner if required.

The new policy is based on the recognition that the stockpile goals are not static, but rather that they may change with the conditions noted above.

The new policy became effective August 23, 1976, and the new goals were announced on October 1, 1976.

INTRODUCTION

The United States stockpiles strategic and critical materials in sufficient quantities to protect the Nation against a dangerous and costly dependence upon foreign sources of supply in time of national emergency.

The authority for stockpiling is contained in the Strategic and Critical Materials Stock Piling Act (50 U.S.C. 98 *et seq.*). The responsibility for the execution of this law was delegated to the Administrator, General Services Administration (GSA), by Executive Order 11725, dated June 27, 1973. The Administrator redelegated these functions to the Director, Federal Preparedness Agency (FPA).

This report covers the stockpiling functions of FPA for the period July 1 through September 30, 1976, which is referred to as the transition quarter between Fiscal Year 1976 and Fiscal Year 1977. The transition quarter came about as a result of Congressional action changing the fiscal year from July 1 through June 30 to October 1 through September 30. The next report will cover the first half of FY 77--October 1, 1976, through March 31, 1977. Subsequent reports will be published every six months thereafter.

This will be the final report that refers to the word "objectives" of materials. These objectives represent the estimated difference between supply and requirements to meet national security needs. Future reports will present information and data within the conceptual framework of flexible stockpile "goals" rather than "objectives." The reports will summarize the progress made towards

those goals as fulfilled by the Annual Materials Plan for the pertinent six-month report period.

In August the President approved new national policies concerning the strategic and critical materials stockpile upon advice from the National Security Council. Outlined below are the key elements of the new policy:

- Planning will be based on the first three years of an emergency of indefinite duration, compared to the first year under the previous guidelines.
- The civilian portion of the economy will be provided for after some reasonable allowances for "belt tightening."
- For each year used in planning, stockpile needs will be estimated separately for defense and civilian requirements. Previous policy combined civilian and military needs rather than considering them separately.

Under this guidance, new flexible stockpile goals have been prepared on the commodities determined to be strategic and critical. These new goals replace the fixed objectives of the past as of October 1, 1976. The list of commodities and their goals as of October 1 are shown on pages 17, 18, and 19.

The Federal Preparedness Agency continued to work with the National Materials

Advisory Board on a study of materials which may become strategic and critical in the future. The study involves an examination of the effects of technology on the consumption and supply of those materials which are not currently stockpiled, but which may be in short supply under future emergency conditions.

Government inventories contain specification and nonspecification grade materials. In some cases, the nonspecification grade material is credited to stockpile objectives. Much of the nonspecification grade materials in the National Stockpile was acquired by the transfer of Government-owned surpluses to the stockpile after World War II. Some materials were of specification grade when ac-

quired, but no longer qualify because of changes in industry practices and technological advances.

Disposal balances shown in Table II, "Summary of Government Inventories, Objectives, Excesses and Balance of Disposal Authorizations" represent statutory authorizations for sales of excess materials in the National and Supplemental Stockpiles or, in the case of Defense Production Act materials, represent sales previously approved by the Director, FPA. Inventory changes during the report period were due primarily to disposals or to reclassification and other adjustments in the inventories. There were no changes to the composition of the stockpile list during the report period.

SUMMARY OF GOVERNMENT INVENTORIES OF STRATEGIC AND CRITICAL MATERIALS

As of September 30, 1976, the estimated market value of strategic and critical materials held in Government inventories amounted to \$7.5 billion, including \$1.5 billion held against objectives, and \$6.0 billion in excess of objectives.

Table I, "Summary of Government Inventories of Strategic and Critical Materials" summarizes the acquisition cost and total value of all materials in Government inventories, as of September 30, 1976. Table II, "Summary of Government Inventories, Objectives, Excesses and Balance of Disposal Authorizations" indicates the estimated market value of indi-

vidual materials held against stockpile objectives and of those materials which are in excess of objectives. The market values are unadjusted for normal premiums and discounts relating to various grades and conditions, or for inherent materials-handling costs incurred in moving the materials at the time of disposal. The procedure for estimating the value of the stockpile materials does not take into account the strength or weakness of market conditions. For these reasons, the estimated market value does not necessarily reflect the revenue that might be obtained if the materials were offered for sale.

TABLE I
SUMMARY OF GOVERNMENT INVENTORIES OF
STRATEGIC AND CRITICAL MATERIALS

September 30, 1976

| | Acquisition Cost | Market Value ¹ |
|---|---------------------|---------------------------|
| A. I. Inventories Reserved for Objectives | | \$1,523,268,400 |
| II. Uncommitted Excess Inventories ² | | \$5,955,739,100 |
| Total | | \$7,479,007,500 |
| B. I. Total Inventories in Storage ³ | | |
| National Stockpile | \$2,490,814,200 | \$5,824,059,000 |
| Supplemental Stockpile | 1,080,207,100 | 1,910,981,800 |
| Defense Production Act | 304,549,000 | 265,856,300 |
| Total on Hand | \$3,875,570,300 | \$8,000,897,100 |
| II. Inventories Within Objective (in storage) | | |
| Total | \$ 715,773,700 | \$1,523,268,400 |
| III. Excess Inventories in Storage | | |
| Total | \$3,159,796,600 | \$6,477,628,700 |

¹Market values are computed from prices at which similar materials are being traded; or, in the absence of current trading, at an estimate of the price which would prevail in commercial markets. Market values are unadjusted for normal premiums and discounts relating to contained quantities, or for inherent materials-handling allowances. *Market values do not necessarily reflect the amount that would be realized at time of sale.*

²Uncommitted Excess Inventories exclude unshipped sales.

³Inventories in storage include quantities that have been sold but not shipped.

TABLE II
SUMMARY OF GOVERNMENT INVENTORIES, OBJECTIVES,
EXCESSES AND BALANCE OF DISPOSAL AUTHORIZATIONS

Basic Stockpile Materials
September 30, 1976

(Market Value - Millions of Dollars)

| Commodity | Unit | Objective ¹ | Total Inventory ² | Market Value ³ | Excess ⁴ | Market Value ³ | Balance of Disposal Authorization |
|--|------|------------------------|------------------------------|---------------------------|---------------------|---------------------------|-----------------------------------|
| 1. Aluminum | ST | 0 | 5,426 | \$ 5.2 | 5,426 | \$ 5.2 | 5,426 ⁵ |
| 2. Aluminum Oxide, Abrasive Grain .. | ST | 17,200 | 50,905 | 15.8 | 33,705 | 10.4 | 0 |
| 3. Aluminum Oxide, Fused, Crude ... | ST | 0 | 249,009 | 44.9 | 249,009 | 44.9 | 0 |
| 4. Antimony | ST | 0 | 40,714 | 132.6 | 40,714 | 132.6 | 0 |
| 5. Asbestos, Amosite | ST | 0 | 42,665 | 14.7 | 42,665 | 14.7 | 24,265 |
| 6. Asbestos, Chrysotile | ST | 1,100 | 10,955 | 5.0 | 9,855 | 4.4 | 0 |
| 7. Bauxite, Metal Grade, Jamaica ... | LDT | 4,638,000 | 8,858,881 | 213.9 | 4,220,881 | 101.9 | 1,370,077 |
| 8. Bauxite, Metal Grade, Surinam ... | LDT | 0 | 5,300,000 | 153.2 | 5,300,000 | 153.2 | 0 |
| 9. Bauxite, Refractory | LCT | 0 | 173,000 | 20.4 | 173,000 | 20.4 | 0 |
| 10. Beryl Ore | ST | 0 | 17,986 | 8.1 | 17,986 | 8.1 | 0 |
| 11. Beryllium Copper Master Alloy ... | LB | 0 | 14,773,731 | 45.4 | 14,773,731 | 45.4 | 0 |
| 12. Beryllium Metal | ST | 88 | 229 | 34.3 | 141 | 21.1 | 0 |
| 13. Bismuth | LB | 95,900 | 2,081,298 | 15.6 | 1,985,398 | 14.9 | 0 |
| 14. Cadmium | LB | 4,446,500 | 6,328,955 | 19.0 | 1,882,455 | 5.6 | 328,955 |
| 15. Castor Oil | | | | | | | |
| a. Castor Oil | LB | 0 | 0 | 0 | 0 | 0 | 0 |
| b. Sebacic Acid | LB | 0 | 5,009,697 | 6.0 | 5,009,697 | 6.0 | 0 |
| 16. Chromite, Chemical Grade | SDT | 8,400 | 250,000 | 12.7 | 241,600 | 12.3 | 0 |
| 17. Chromite, Metallurgical | SDT | 444,710 | 2,484,655 | 267.1 | 2,039,945 | 208.7 | 0 |
| 18. Chromium, Ferro, High Carbon ... | ST | 11,476 | 402,694 | 300.1 | 391,218 | 291.5 | 0 |
| 19. Chromium, Ferro, Low Carbon ... | ST | 0 | 318,893 | 374.1 | 318,893 | 374.1 | 0 |
| 20. Chromium, Ferro, Silicon | ST | 0 | 58,356 | 42.0 | 58,356 | 42.0 | 0 |
| 21. Chromium, Metal | ST | 0 | 3,763 | 18.4 | 3,763 | 18.4 | 0 |
| 22. Chromite, Refractory | SDT | 54,000 | 399,960 | 25.3 | 345,960 | 21.9 | 0 |
| 23. Cobalt | LB | 11,945,000 | 40,693,169 | 179.0 | 28,748,169 | 126.5 | 2,493,169 |
| 24. Columbium Concentrates | LB | 0 | 1,751,553 | 5.2 | 1,751,553 | 5.2 | 0 |
| 25. Columbium Carbide Powder | LB | 16,000 | 21,372 | 0.4 | 5,372 | 0.09 | 1,372 |
| 26. Columbium, Ferro | LB | 748,000 | 930,911 | 4.4 | 182,911 | 0.9 | 0 |
| 27. Columbium, Metal | LB | 36,000 | 44,851 | 1.1 | 8,851 | 0.2 | 0 |
| 28. Copper | | | | | | | |
| a. Copper Oxygen Free, High Conductivity | ST | 0 | 0 | 0 | 0 | 0 | 0 |
| b. Other | ST | 0 | 0 | 0 | 0 | 0 | 0 |

TABLE II
SUMMARY OF GOVERNMENT INVENTORIES, OBJECTIVES,
EXCESSES AND BALANCE OF DISPOSAL AUTHORIZATIONS (Continued)

Basic Stockpile Materials
September 30, 1976

(Market Value - Millions of Dollars)

| Commodity | Unit | Objective ¹ | Total Inventory ² | Market Value ³ | Excess ⁴ | Market Value ³ | Balance of Disposal Authorization |
|--|------|------------------------|------------------------------|---------------------------|---------------------|---------------------------|-----------------------------------|
| 29. Cordage Fibers, Abaca | LB | 0 | 0 | \$ 0 | 0 | \$ 0 | 0 |
| 30. Cordage Fibers, Sisal | LB | 0 | 0 | 0 | 0 | 0 | 0 |
| 31. Diamond Dies, Small | PC | 7,900 | 25,473 | 1.1 | 17,573 | 0.8 | 0 |
| 32. Diamond, Industrial, Crushing Bort | KT | 0 | 31,944,377 | 70.6 | 31,944,377 | 70.6 | 8,244,377 |
| 33. Diamond, Industrial, Stones | KT | 0 | 19,999,999 | 163.0 | 19,999,999 | 163.0 | 0 |
| 34. Feathers and Down | LB | 1,938,000 | 612,080 | 3.3 | 0 | 0 | 612,080 ⁶ |
| 35. Fluorspar, Acid Grade | SDT | 0 | 889,991 | 93.4 | 889,991 | 93.4 | 0 |
| 36. Fluorspar, Metallurgical Grade | SDT | 159,000 | 411,788 | 35.8 | 252,788 | 22.0 | 0 |
| 37. Graphite, Natural, Ceylon | ST | 3,100 | 5,499 | 2.3 | 2,399 | 1.0 | 0 |
| 38. Graphite, Natural, Malagasy | ST | 8,200 | 17,939 | 9.3 | 9,739 | 5.1 | 0 |
| 39. Graphite, Natural, Other than C&M Crystalline | ST | 0 | 2,802 | 0.5 | 2,802 | 0.5 | 0 |
| 40. Iodine | LB | 0 | 8,011,698 | 20.7 | 8,011,698 | 20.7 | 0 |
| 41. Jewel Bearings | PC | 62,740,000 | 49,222,612 | 28.5 | 0 | 0 | 0 |
| 42. Lead | ST | 65,100 | 601,060 | 297.5 | 535,960 | 265.3 | 71,162 ⁵ |
| 43. Manganese Battery Grade, Natural Ore | SDT | 10,700 | 264,583 | 28.7 | 253,883 | 27.3 | 129,583 |
| 44. Manganese, Battery Grade, Synthetic Dioxide | SDT | 0 | 3,008 | 1.4 | 3,008 | 1.4 | 1,108 |
| 45. Manganese Ore, Chemical Grade, Type A | SDT | 12,800 | 145,586 | 9.5 | 132,786 | 8.7 | 110,586 |
| 46. Manganese Ore, Chemical Grade, Type B | SDT | 12,800 | 75,410 | 5.1 | 62,610 | 4.2 | 40,410 |
| 47. Manganese Ore, Metallurgical | SDT | 750,500 | 3,706,813 | 232.5 | 2,956,313 | 178.4 | 1,101,213 |
| 48. Manganese Ferro, High Carbon | ST | 200,000 | 600,000 | 227.7 | 400,000 | 151.8 | 0 |
| 49. Manganese, Ferro, Low Carbon | ST | 0 | 0 | 0 | 0 | 0 | 0 |
| 50. Manganese, Ferro, Medium Carbon | ST | 10,500 | 28,920 | 19.6 | 18,420 | 12.5 | 0 |
| 51. Manganese, Silicon | ST | 15,900 | 23,574 | 11.0 | 7,674 | 3.6 | 0 |
| 52. Manganese Metal, Electrolytic | ST | 4,750 | 14,166 | 16.4 | 9,416 | 10.9 | 0 |
| 53. Mercury | FL | 42,700 | 200,058 | 23.8 | 157,358 | 18.7 | 0 |

TABLE II
SUMMARY OF GOVERNMENT INVENTORIES, OBJECTIVES,
EXCESSES AND BALANCE OF DISPOSAL AUTHORIZATIONS (Continued)

Basic Stockpile Materials
September 30, 1976

(Market Value - Millions of Dollars)

| Commodity | Unit | Objective ¹ | Total Inventory ² | Market Value ³ | Excess ⁴ | Market Value ³ | Balance of Disposal Authorization |
|--|------------|------------------------|------------------------------|---------------------------|---------------------|---------------------------|-----------------------------------|
| 54. Mica, Muscovite Block, Stained and Better | LB | 1,600,000 | 5,108,133 | \$ 27.2 | 3,508,133 | \$ 16.3 | 0 |
| 55. Mica, Muscovite Film, First and Second Qualities | LB | 413,000 | 1,346,605 | 15.8 | 933,605 | 10.9 | 78,826 |
| 56. Mica, Muscovite Splittings | LB | 2,200,000 | 23,084,075 | 27.7 | 20,884,075 | 25.1 | 4,024,200 |
| 57. Mica, Phlogopite Block | LB | 51,000 | 127,773 | 0.04 | 76,773 | 0.02 | 76,773 |
| 58. Mica, Phlogopite Splittings | LB | 200,000 | 3,183,323 | 3.8 | 2,983,323 | 3.6 | 2,233,323 |
| 59. Molybdenum | | | | | | | |
| a. Molybdenum Disulphide | LB | 0 | 0 | 0 | 0 | 0 | 0 |
| b. Molybdenum, Ferro | LB | 0 | 0 | 0 | 0 | 0 | 0 |
| c. Molybdic Oxide | LB | 0 | 0 | 0 | 0 | 0 | 0 |
| 60. Nickel | ST | 0 | 0 | 0 | 0 | 0 | 0 |
| 61. Opium | | | | | | | |
| a. Opium, Gum | LB | 0 | 30,205 | 12.2 | 30,205 | 12.2 | 0 |
| b. Opium, Salt | LB | 0 | 39,509 | 16.0 | 39,509 | 16.0 | 0 |
| 62. Platinum Group Metals, Iridium .. | TrOz | 1,800 | 17,002 | 5.2 | 15,202 | 4.6 | 12 |
| 63. Platinum Group Metals, Palladium | TrOz | 328,500 | 1,254,994 | 72.2 | 926,494 | 53.3 | 0 |
| 64. Platinum Group Metals, Platinum | TrOz | 187,500 | 452,645 | 79.2 | 265,145 | 46.4 | 0 |
| 65. Pyrethrum | LB | 0 | 0 | 0 | 0 | 0 | 0 |
| 66. Quartz Crystals | LB | 209,000 | 2,696,578 | 7.6 | 2,487,578 | 7.0 | 2,376,578 |
| 67. Quinidine | OZ | 1,059,000 | 1,800,356 | 14.8 | 741,356 | 6.1 | 0 |
| 68. Quinine | OZ | 779,500 | 3,246,166 | 20.1 | 2,466,666 | 15.3 | 0 |
| 69. Rubber | LT | 0 | 120,190 | 106.7 | 120,190 | 106.7 | 0 |
| 70. Rutile | SDT | 0 | 39,186 | 11.8 | 39,186 | 11.8 | 0 |
| 71. Sapphire and Ruby | KT | 0 | 16,305,502 | 0.2 | 16,305,502 | 0.2 | 0 |
| 72. Shellac | LB | 0 | 0 | 0 | 0 | 0 | 0 |
| 73. Silicon Carbide | ST | 0 | 80,619 | 22.9 | 80,619 | 22.9 | 80,619 |
| 74. Silver | (Fine)TrOz | 21,663,000 | 139,500,000 | 585.9 | 117,837,000 | 494.9 | 0 |
| 75. Talc, Steatite Block and Lump | ST | 0 | 1,119 | 0.4 | 1,119 | 0.4 | 919 |
| 76. Tantalum Carbide Powder | LB | 2,900 | 28,688 | 0.8 | 25,788 | 0.7 | 0 |
| 77. Tantalum Metal | LB | 45,000 | 201,133 | 9.1 | 156,133 | 7.0 | 0 |

TABLE II
SUMMARY OF GOVERNMENT INVENTORIES, OBJECTIVES,
EXCESSES AND BALANCE OF DISPOSAL AUTHORIZATIONS (Continued)

Basic Stockpile Materials
September 30, 1976
(Market Value - Millions of Dollars)

| Commodity | Unit | Objective ¹ | Total Inventory ² | Market Value ³ | Excess ⁴ | Market Value ³ | Balance of Disposal Authorization |
|--|------|------------------------|------------------------------|---------------------------|---------------------|---------------------------|-----------------------------------|
| 78. Tantalum Minerals | LB | 312,000 | 2,545,410 | \$ 40.6 | 2,233,410 | \$ 35.6 | 0 |
| 79. Thorium | ST | 0 | 3,637 | 9.1 | 3,637 | 9.1 | 3,550 |
| 80. Tin | LT | 40,500 | 203,774 | 1,670.6 | 163,274 | 1,338.6 | 3,148 |
| 81. Titanium Sponge | ST | 32,329 | 32,329 | 162.3 | 0 | 0 | 0 |
| 82. Tungsten Carbide Powder | LB | 0 | 2,032,833 | 21.9 | 2,032,833 | 21.9 | 2,032,833 |
| 83. Tungsten, Ferro | LB | 0 | 2,025,463 | 15.7 | 2,025,463 | 15.7 | 2,025,463 |
| 84. Tungsten, Metal Powder, Carbon Reduced | LB | 0 | 716,910 | 7.2 | 716,910 | 7.2 | 716,910 |
| 85. Tungsten, Metal Powder, Hydrogen Reduced | LB | 0 | 1,048,456 | 11.5 | 1,048,456 | 11.5 | 1,048,456 |
| 86. Tungsten Ores and Concentrates | LB | 4,234,000 | 107,248,083 | 815.7 | 103,014,083 | 783.5 | 82,080,121 |
| 87. Vanadium | | | | | | | |
| a. Vanadium, Ferro | ST | 0 | 0 | 0 | 0 | 0 | 0 |
| b. Vanadium Pentoxide | ST | 0 | 539 | 4.7 | 539 | 4.7 | 0 |
| 88. Vegetable Tannin Extract, Chestnut | LT | 4,400 | 21,465 | 11.5 | 17,065 | 9.1 | 11,965 |
| 89. Vegetable Tannin Extract, Quebracho | LT | 0 | 164,595 | 85.7 | 164,595 | 85.7 | 113,995 |
| 90. Vegetable Tannin Extract, Wattle | LT | 0 | 18,021 | 9.2 | 18,021 | 9.2 | 8,521 |
| 91. Zinc | ST | 374,830 | 374,830 | 296.1 | 0 | 0 | 0 |

FOOTNOTES

¹ These objectives do not reflect the results of the stockpile study announced October 1, 1976.

² Total inventory consists of stockpile and nonstockpile grades and does not include materials already committed for sale.

³ Market values are estimated from prices at which similar materials are being traded; or, in the absence of trading data, at an estimate of the price which would prevail in the market. Prices used are unadjusted for normal premiums and discounts relating to contained qualities or normal freight allowances. *The market values do not necessarily reflect the amount that would be realized at time of sale.*

FOOTNOTES (Continued)

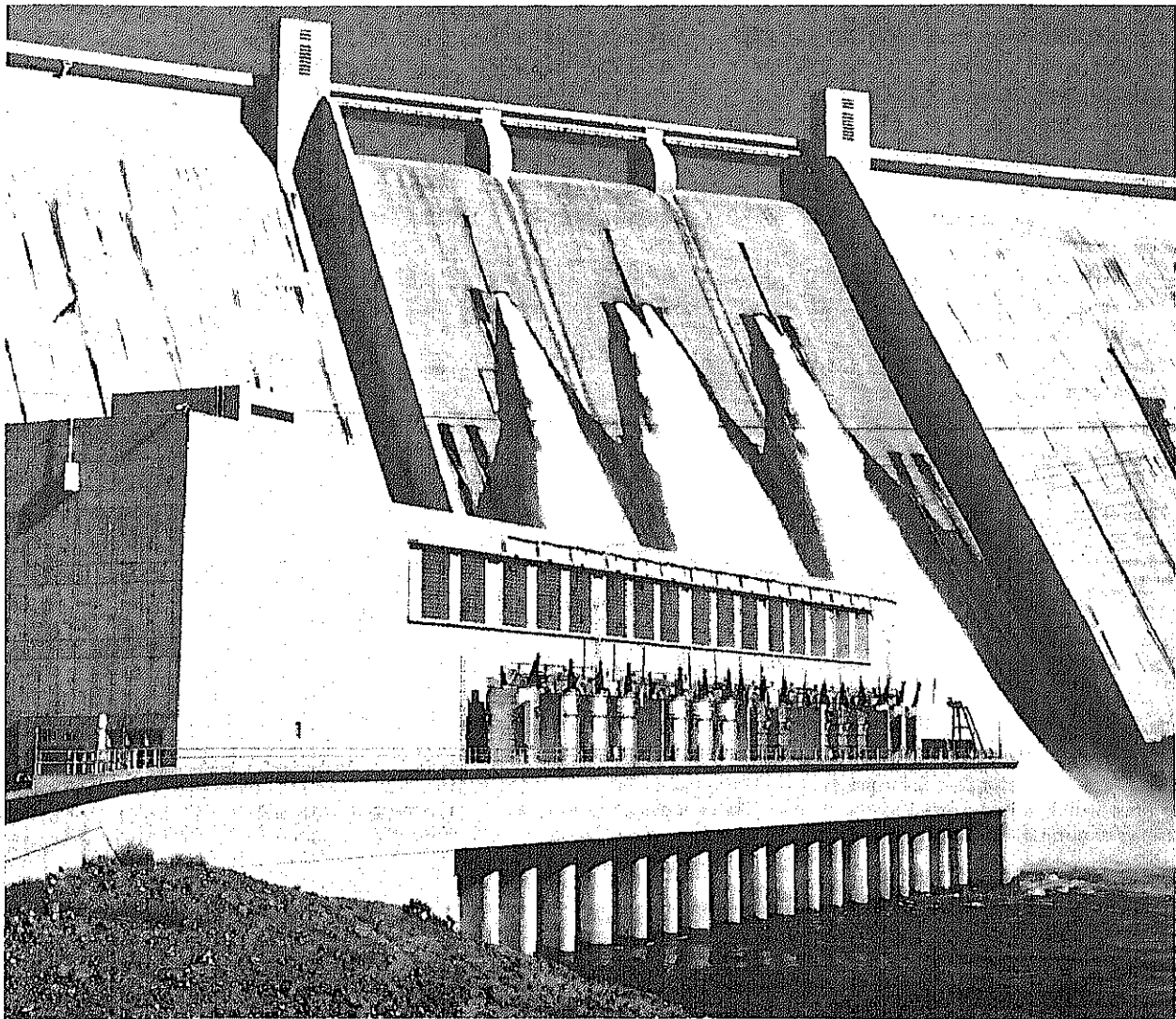
⁴Includes materials for which Congressional disposal legislation was pending as of September 30, 1976.

⁵Committed for sale but undelivered under long-term contracts.

⁶Balance available due to rotation in order to prevent deterioration.

ABBREVIATIONS

| | | | | | |
|-----|---|-------------------|------|---|---------------|
| FL | - | Flask | OZ | - | Ounce |
| KT | - | Carat | PC | - | Piece |
| LB | - | Pound | SDT | - | Short Dry Ton |
| LCT | - | Long Calcined Ton | ST | - | Short Ton |
| LDT | - | Long Dry Ton | TrOz | - | Troy Ounce |
| LT | - | Long Ton | | | |



The national stockpile represents a store of energy required to produce strategic and critical materials.

OTHER MATERIALS IN GOVERNMENT INVENTORIES

Inventories of materials that have been removed from the stockpile list, and of other materials for which there are no stockpile

objectives, are shown in Table III. These inventories are not included in the previous tabulation.

TABLE III

SUMMARY OF GOVERNMENT INVENTORIES AND BALANCE OF DISPOSAL AUTHORIZATIONS COVERING MATERIALS FOR WHICH THERE ARE NO STOCKPILE OBJECTIVES

September 30, 1976

(Market Value - Millions of Dollars)

| Commodity | Unit | Total Inventory ¹ | Market Value ² | Balance of Disposal Authorization |
|-----------------------------|------|------------------------------|---------------------------|-----------------------------------|
| Asbestos, Crocidolite | ST | 2,384 | \$ 0.2 | 2,384 |
| Celestite | SDT | 14,408 | 0.4 | 14,408 |
| Diamond Tools | PC | 60,183 | 0.7 | 60,183 |
| Kyanite-Mullite | SDT | 2,816 | 0.2 | 2,816 |
| Magnesium | ST | 1,121 | 2.1 | 1,121 |
| Rare Earths | SDT | 7,174 | 8.3 | 7,174 |
| Sperm Oil | LB | 18,243 | 0.006 | 18,243 |
| Talc, Steatite Ground | ST | 2,916 | 0.02 | 2,916 |

¹Inventory reflects uncommitted balance.

²Market values are estimated from prices at which similar materials are being traded; or, in the absence of trading data, at an estimate of the price which would prevail in the market. Prices used are unadjusted for normal premiums and discounts relating to contained qualities or normal freight allowances. *The market values do not necessarily reflect the amount that would be realized at time of sale.*

STOCKPILE ACTIVITIES

Procurement

The Strategic Stockpile Procurement Directive for FY 1976, issued August 28, 1975, provided for the cash procurement of two million pieces of jewel bearings from the Government-owned William Langer Jewel Bearing Plant at Rolla, North Dakota. The plant, operated by the Bulova Watch Company, Inc., continued to produce jewel bearings for the National Stockpile and for defense contractors under the existing contract with GSA. Jewel Bearings and related items ordered from the plant for the defense program during the period July through September 1976, totaled 486,799.

Orders for "related items" totaled 27,900 during the same period. These included items made from synthetic sapphire such as domed pins, plates, knife edges, vee grooves, spacers, insulators, windows, and balls.

The plant continued to operate on a profitable basis during the report period. Net income for the three-month period ending September 30, 1976, amounted to \$20,327.

Disposal Program

During July–September 1976, GSA disposal sales of excess strategic and critical materials from all Government inventories totaled \$27.0 million. Of the total disposals of \$27.0 million, approximately \$20.8 million were from the National and Supplemental

Stockpiles, \$5.4 million from the Defense Production Act inventory, and \$0.8 million from "other sales."

Major sales were of cobalt, \$2.9 million; tin, \$2.9 million; and tungsten ores and concentrates, \$9.6 million. The commodities and quantities making up the total sales for this period are listed in Table IV.

Cumulative fiscal year sales since the inception of the disposal program total approximately \$7.2 billion. (Figures 1 and 2, page 13.)

Storage and Maintenance

On September 30, 1976, GSA stored approximately 33 million tons of strategic materials at 121 locations as follows:

| | |
|------------------------------|-----------|
| Military Depots | 34 |
| GSA Depots | 28 |
| Other Government-owned Sites | 14 |
| Leased Commercial Sites | 12 |
| Industrial Plantsites | 33 |
| Total | <hr/> 121 |

Following heavy disposals of stockpile materials during the past few years, continued progress was made in storage consolidation in order to return unneeded warehouse space to the Public Buildings Service. During July–September 1976, 240,000 square feet at GSA depots were vacated and returned to PBS.

Million Dollars

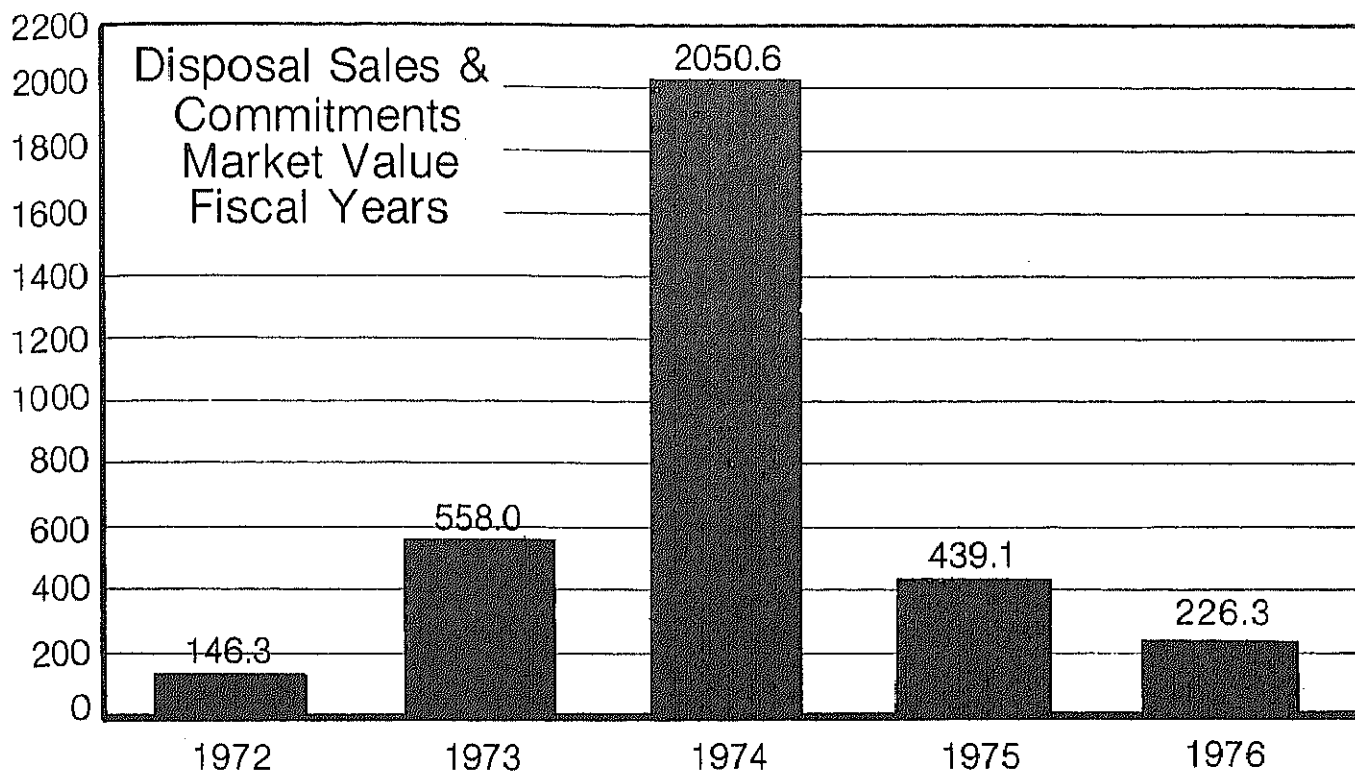
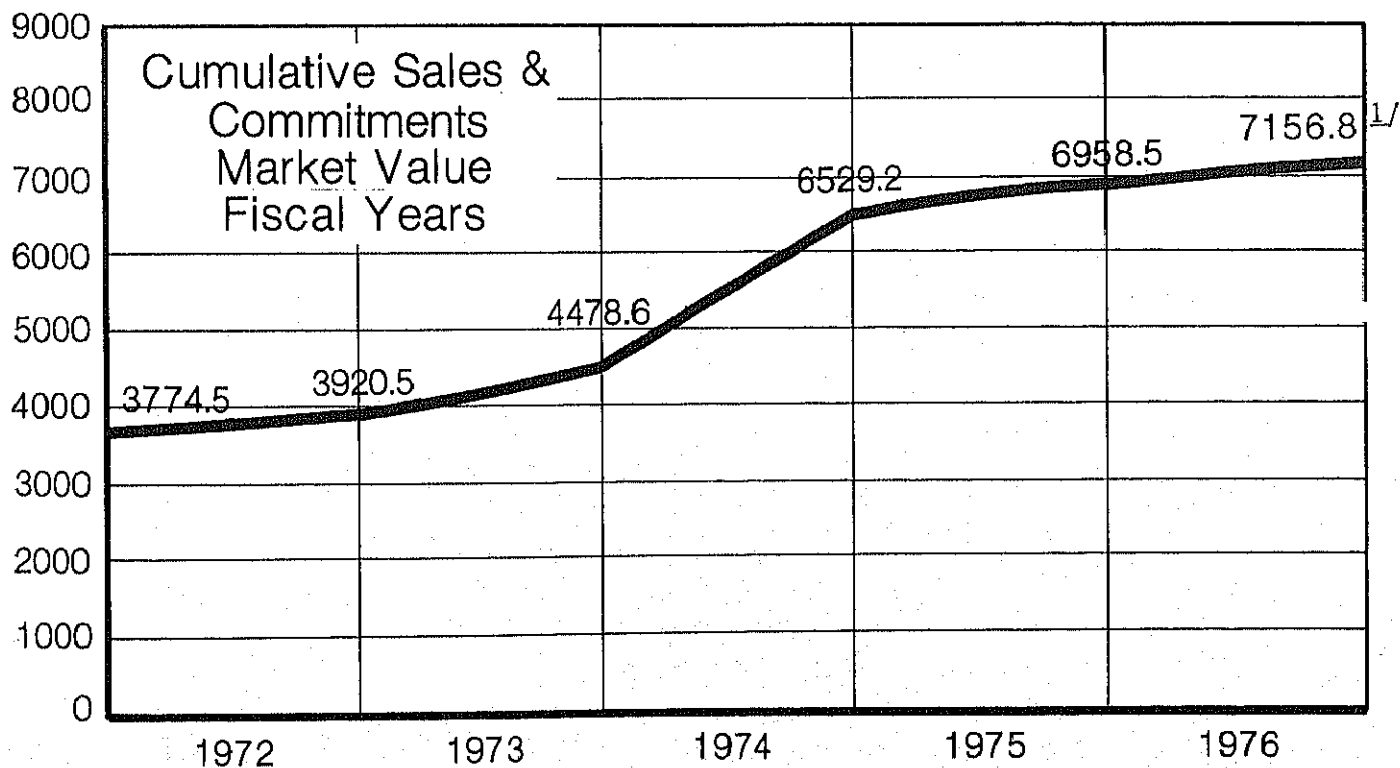


Figure 1

Including 3-month Budget Transition Quarter

Million Dollars



^{1/} Reflects adjustment for the cancellation or curtailment of selected disposal programs.

Figure 2

Including 3-month Budget Transition Quarter

TABLE IV
DISPOSALS OF STRATEGIC AND CRITICAL MATERIALS

July–September 1976

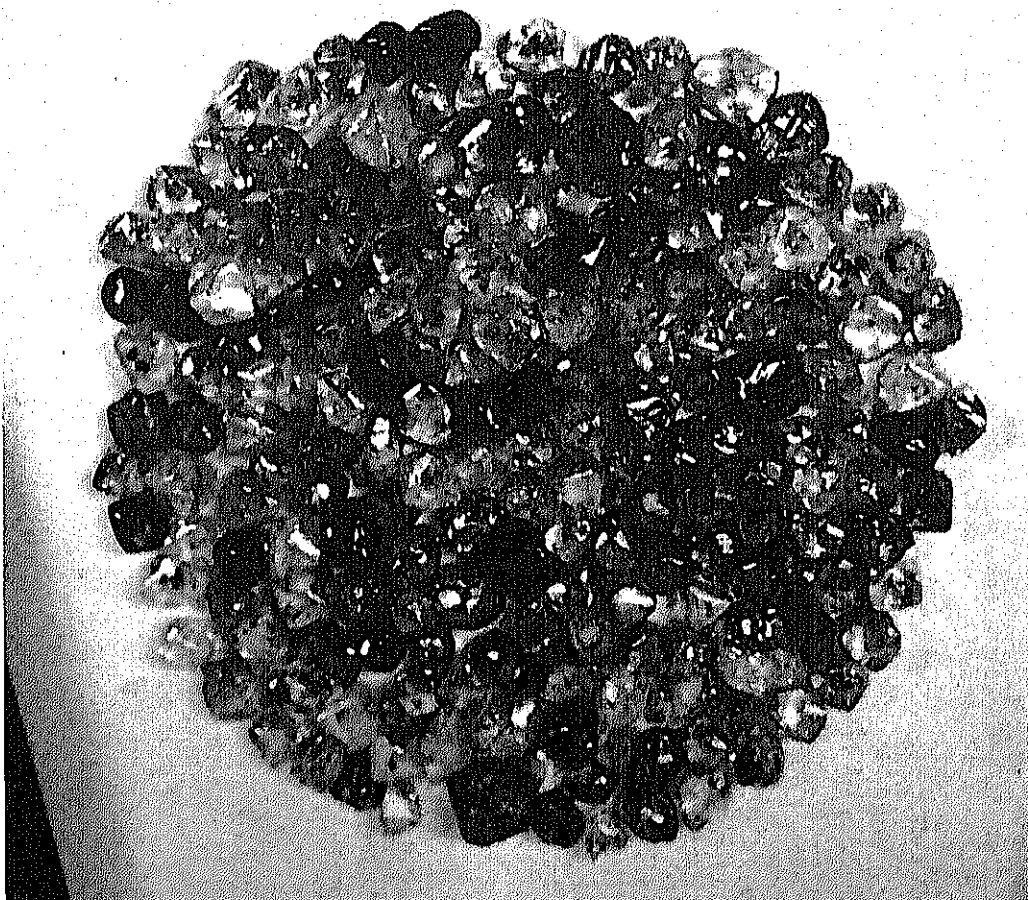
| Material | Unit | Quantity | Sales Commitments | | |
|--|------|------------------|------------------------|----------------------|------------------------|
| | | | Government Use | Industrial Use | Total Sale Value |
| NATIONAL AND SUPPLEMENTAL STOCKPILE INVENTORIES: | | | | | |
| Aluminum | ST | 278 | \$ | \$ 216,840 | \$ 216,840 |
| Asbestos, Amosite | ST | 150 | | 51,750 | 51,750 |
| Asbestos, Crocidolite | ST | -99 ¹ | | -15,020 ¹ | -15,020 ¹ |
| Cobalt | LB | 553,841 | | 2,866,295 | 2,866,295 |
| Copper Oxygen Free, High Conductivity ... | ST | 500 | 700,000 | | 700,000 |
| Copper, Other | ST | 1,205 | 1,687,000 | | 1,687,000 |
| Diamond, Industrial, Bort | KT | 485,500 | | 1,058,357 | 1,058,357 |
| Diamond, Industrial, Stones | KT | | 5,283,154 ¹ | | 5,283,154 ¹ |
| Mica, Muscovite Film | LB | 2,824 | | 10,569 | 10,569 |
| Mica, Muscovite Splittings | LB | 625,000 | | 584,340 | 584,340 |
| Mica, Phlogopite Splittings | LB | 88,481 | | 55,002 | 55,002 |
| Molybdenum Disulphide | LB | 130,151 | | 888,514 | 888,514 |
| Molybdenum Oxide | LB | | | 5,600 ¹ | 5,600 ¹ |
| Quartz Crystals | LB | 56,907 | | 305,711 | 305,711 |
| Rare Earths | SDT | 28 | | 8,611 | 8,611 |
| Talc, Steatite Block and Lump | ST | 30 | | 9,200 | 9,200 |
| Thorium Nitrate | LB | 6,300 | | 14,175 | 14,175 |
| Tin | LT | 350 | | 2,853,480 | 2,853,480 |
| Tungsten Ores and Concentrates | LB | 614,451 | | 4,224,677 | 4,224,677 |
| Vegetable Tannin: | | | | | |
| Quebracho | LT | 63 | 29,666 | | 29,666 |
| Total NATIONAL AND SUPPLEMENTAL STOCKPILES | | | \$7,699,820 | \$ 13,138,101 | \$ 20,837,921 |
| DEFENSE PRODUCTION ACT INVENTORY: | | | | | |
| Manganese, Metallurgical | SDT | 2,800 | \$ | \$ 97,346 | \$ 97,346 |
| Mica, Muscovite Film | LB | 991 | | 4,645 | 4,645 |
| Tungsten Ores and Concentrates | LB | 756,518 | | 5,333,145 | 5,333,145 |
| Total DPA | | | \$ | \$ 5,435,136 | \$ 5,435,136 |

TABLE IV
DISPOSALS OF STRATEGIC AND CRITICAL MATERIALS (Continued)

July-September 1976

| Material | Unit | Quantity | Sales Commitments | | |
|-------------------|------|----------|-------------------|----------------|------------------|
| | | | Government Use | Industrial Use | Total Sale Value |
| OTHER: | | | | | |
| Lithium | LB | 943,444 | \$ | \$ 766,124 | \$ 766,124 |
| Total OTHER | | | \$ | \$ 766,124 | \$ 766,124 |
| GRAND TOTAL | | | \$7,699,820 | \$ 19,339,361 | \$ 27,039,181 |

¹ Represents adjustments to prior year contracts.



Industrial diamonds are the hardest naturally - occurring substance.

Stockpile Disposal Legislation

Public Law 94-359 was enacted July 12, 1976. This law permits GSA to honor the contracts for disposal of excess stockpile sperm oil, pursuant to the notice published in the Federal Register January 9, 1973, which covered 23,400,000 pounds of sperm oil.

On August 5, 1976, Congressman Charles E. Bennett introduced H.R. 15081, a bill to authorize the disposal of various materials from the national stockpile and the supplemental stockpile, and for other purposes which provided for a fund into which sales receipts would be covered and from which revenues for acquisitions would be appropriated. This bill combined the four Administration bills on antimony, industrial diamond stones, silver, and tin introduced in April 1976.

On August 25 the Subcommittee on National Stockpile and Naval Petroleum Reserves of the Senate Armed Services Committee held hearings on antimony, S. 3346; industrial diamond stones, S. 3347; silver,

S. 3344; and tin, S. 3345. On August 26, 1976, the Subcommittee on Seapower and Strategic and Critical Materials of the House Armed Services Committee held hearings on H.R. 15081. The Director, FPA, appeared before the Subcommittees to testify in support of these bills.

The Senate Subcommittee favored disposal of quantities of the four materials from the national stockpile, but would only authorize the disposal of 2.5 million carats of industrial diamond stones rather than the 8.5 million carats requested by the Administration which was favorably reported by the House Armed Services Committee. The Senate measure contained no provision similar to H.R. 15081 to establish a revolving fund.

On September 13, 1976, the House Committee on Armed Services reported favorably without amendment H.R. 15081. The House failed to pass H.R. 15081 under suspension of the rules September 20, 1976.

These bills were not enacted when the 94th Congress adjourned October 1, 1976.

TABLE V
EXPENDITURES OF STOCKPILE FUNDS, BY TYPE
(for the National Stockpile)

| Cumulative and for Transition Quarter (7/1 through 9/30/76) | | | |
|---|-------------------------------------|--|--|
| Type of Expenditures | Cumulative Through June 30, 1976 | Transition Quarter Ended September 30, 1976 | Cumulative Through September 30, 1976 |
| Expenditures | | | |
| Grand Total | \$6,611,728,772 | \$2,178,300 | \$6,613,907,072 |
| Less: Receipts from Rotation Sales and Reimbursements | 547,063,108 | - ¹ | 547,063,108 |
| Net Total | 6,064,665,664 | 2,178,300 | 6,066,843,964 |
| Materials Acquisition Costs, Total | 5,442,876,581 | -3,823 | 5,442,872,758 |
| Stockpile Maintenance Costs, Total | 492,734,741 | 535,590 | 493,270,331 |
| Facility Construction | 43,772,457 | - | 43,772,457 |
| Storage and Handling Costs | 346,124,038 | 535,590 | 346,659,628 |
| Net Rotation Costs | 102,838,246 | - | 102,838,246 |
| Administrative Costs | 112,497,193 | 1,646,533 | 114,143,726 |
| Operations, Machine Tool Program | 16,557,149 | - | 16,557,149 |

Cumulative figures are the total expenditures under PL 117, 76th Congress and PL 520, 79th Congress. Expenditures under PL 117 totaled \$70,000,000 of which \$55,625,237 was for materials acquisition costs and \$14,374,763 was for other costs. Final expenditures under PL 117 were made in FY 1951.

¹ Does not include receipts from Rotation Sales during the 1976 transition quarter of \$781,706 which are held for replacement of material sold under the Rotation Program.

TABLE VI
TOTAL OBLIGATIONS AND EXPENDITURES OF STOCKPILING FUNDS

Under PL 117 and PL 520 for the National Stockpile
Cumulative and by Fiscal Period through September 30, 1976

| Fiscal Period | OBLIGATIONS INCURRED ¹ | | EXPENDITURES ² | |
|-------------------------------|-----------------------------------|-----------------------------------|---------------------------|-----------------------------------|
| | Net Change by Fiscal Period | Cumulative As of End of Period | By Fiscal Period | Cumulative As of End of Period |
| Prior to Fiscal Year 1948 | \$ 123,871,685 | \$ 123,871,685 | \$ 66,330,731 | \$ 66,330,731 |
| Fiscal Year 1948 | 252,901,411 | 376,773,096 | 82,907,575 | 149,238,306 |
| Fiscal Year 1949 | 459,766,881 | 836,539,977 | 304,486,177 | 453,724,483 |
| Fiscal Year 1950 | 680,427,821 | 1,516,967,798 | 440,834,970 | 894,559,453 |
| Fiscal Year 1951 | 2,075,317,099 | 3,592,284,897 | 655,537,199 | 1,550,096,652 |
| Fiscal Year 1952 | 948,117,547 | 4,540,402,444 | 844,683,459 | 2,394,780,111 |
| Fiscal Year 1953 | 252,375,163 | 4,792,777,607 | 906,158,850 | 3,300,938,961 |
| Fiscal Year 1954 | 116,586,681 | 4,909,364,288 | 644,760,321 | 3,945,699,282 |
| Fiscal Year 1955 | 321,799,833 | 5,231,164,121 | 801,310,094 | 4,747,009,376 |
| Fiscal Year 1956 ³ | 251,692,667 | 5,482,856,788 | 382,011,786 ³ | 5,129,021,162 ³ |
| Fiscal Year 1957 | 190,000,109 | 5,672,856,897 | 354,576,558 | 5,483,597,720 |
| Fiscal Year 1958 | 54,473,250 | 5,727,330,147 | 173,753,997 | 5,657,351,717 |
| Fiscal Year 1959 | 38,710,879 | 5,766,041,026 | 65,260,098 | 5,722,611,815 |
| Fiscal Year 1960 | 19,859,290 | 5,785,900,316 | 49,227,142 | 5,771,838,957 |
| Fiscal Year 1961 | 29,082,919 | 5,814,983,235 | 33,325,431 | 5,805,164,388 |
| Fiscal Year 1962 | 31,179,407 | 5,846,162,642 | 33,695,431 | 5,838,859,819 |
| Fiscal Year 1963 | 17,414,900 | 5,863,577,542 | 22,104,176 | 5,860,963,995 |
| Fiscal Year 1964 | 15,489,597 | 5,879,067,139 | 16,091,067 | 5,877,055,062 |
| Fiscal Year 1965 | 16,288,732 | 5,895,355,871 | 16,561,275 | 5,893,616,337 |
| Fiscal Year 1966 | 16,296,070 | 5,911,651,941 | 16,468,100 | 5,910,084,437 |
| Fiscal Year 1967 | 18,197,410 | 5,929,849,351 | 17,981,675 | 5,928,066,112 |
| Fiscal Year 1968 | 16,008,237 | 5,945,857,588 | 15,902,213 | 5,943,968,325 |
| Fiscal Year 1969 | 15,451,611 | 5,961,309,199 | 15,914,729 | 5,959,883,054 |
| Fiscal Year 1970 | 14,795,005 | 5,976,104,204 | 13,799,261 | 5,973,682,315 |
| Fiscal Year 1971 | 17,529,398 | 5,993,633,602 | 15,797,095 | 5,989,479,410 |
| Fiscal Year 1972 | 19,377,781 | 6,013,011,383 | 17,077,779 | 6,006,557,189 |
| Fiscal Year 1973 | 15,704,293 | 6,028,715,676 | 15,710,849 | 6,022,268,038 |
| Fiscal Year 1974 | 20,585,490 | 6,049,301,166 | 19,359,315 | 6,041,627,353 |
| Fiscal Year 1975 | 13,259,270 | 6,062,560,436 | 13,923,141 | 6,055,550,494 |
| Fiscal Year 1976 | 8,998,088 | 6,071,558,524 | 9,115,170 | 6,064,665,664 |
| Transition Quarter | 2,629,246 | 6,074,187,770 | 2,178,300 | 6,066,843,964 |

¹ Figures are the sum of obligations incurred under PL 520, 79th Congress and PL 117, 76th Congress. Final obligations under PL 117, 76th Congress were incurred in Fiscal Year 1949.

² Figures are the sum of expenditures under PL 520, 79th Congress and PL 117, 76th Congress. Final expenditures under PL 117, 76th Congress were made in Fiscal Year 1951.

³ 1956 and subsequent fiscal periods and cumulative expenditures are reported on an accrual basis.

**STOCKPILE GOALS
OCTOBER 1, 1976**

| | | |
|--|-------|-------------|
| Alumina | ST | 11,532,000 |
| Aluminum | ST | 0 |
| Aluminum Oxide, Abrasive Grain | ST | 75,000 |
| Aluminum Oxide, Fused, Crude | ST | 147,615 |
| Antimony | ST | 20,130 |
| Asbestos, Amosite | ST | 26,291 |
| Asbestos, Chrysotile | ST | 0 |
| Bauxite, Metal Grade, Jamaica | LDT | 523,000 |
| Bauxite, Metal Grade, Surinam | LDT | 0 |
| Bauxite, Refractory | LCT | 2,083,000 |
| Beryl Ore (11% BeO) | ST | 0 |
| Beryllium Copper Master Alloy | ST | 16,710 |
| Beryllium Metal | ST | 895 |
| Bismuth | LB | 771,000 |
| Cadmium | LB | 24,701,000 |
| Castor Oil, Sebacic Acid | LB | 0 |
| Chromite, Chemical Grade Ore (Gross Weight) | SDT | 734,000 |
| Chromite, Metallurgical Grade Ore (Gross Weight) | SDT | 2,550,000 |
| Chromite, Refractory Grade Ore (Gross Weight) | SDT | 642,000 |
| Chromium, Ferro, High Carbon | ST | 236,000 |
| Chromium, Ferro, Low Carbon | ST | 124,000 |
| Chromium, Ferro, Silicon | ST | 69,000 |
| Chromium, Metal | ST | 10,000 |
| Cobalt | LB Co | 85,415,000 |
| Columbium Carbide Powder | LB Cb | 0 |
| Columbium Concentrates | LB Cb | 3,131,000 |
| Columbium, Ferro | LB Cb | 0 |
| Columbium, Metal | LB Cb | 0 |
| Copper | ST | 1,299,000 |
| Cordage Fibers, Abaca | LB | 24,000,000 |
| Cordage Fibers, Sisal | LB | 114,000,000 |
| Diamond Dies, Small | PC | 0 |
| Diamond, Industrial, Crushing Bort | KT | 14,974,000 |
| Diamond, Industrial, Stones | KT | 5,559,000 |
| Feathers and Down | LB | 6,494,000 |
| Fluorspar, Acid Grade | SDT | 1,594,000 |
| Fluorspar, Metallurgical Grade | SDT | 1,914,000 |
| Graphite, Natural-Ceylon, Amorphous Lump | ST | 6,271 |

| | | |
|--|-----------|-------------|
| Graphite, Natural-Malagasy, Crystalline | ST | 20,472 |
| Graphite, Natural-Other than C&M | ST | 34,748 |
| Iodine | LB | 3,333,000 |
| Jewel Bearings | PC | 224,623,000 |
| Lead | ST | 865,000 |
| Manganese, Battery Grade, Natural Ore | SDT | 12,736 |
| Manganese, Battery Grade, Synthetic Dioxide | SDT | 19,105 |
| Manganese Ore, Chemical Grade | SDT | 247,136 |
| Manganese Ore, Metallurgical Grade | SDT | 2,052,000 |
| Manganese, Ferro, High Carbon | ST | 439,000 |
| Manganese, Ferro, Low Carbon | ST | 0 |
| Manganese, Ferro, Medium Carbon | ST | 99,000 |
| Manganese, Ferro, Silicon | ST | 81,000 |
| Manganese Metal, Electrolytic | ST | 15,000 |
| Mercury | FL | 54,004 |
| Mica, Muscovite Block, Stained and Better | LB | 6,188,000 |
| Mica, Muscovite Film, First and Second Qualities | LB | 90,000 |
| Mica, Muscovite Splittings | LB | 12,631,000 |
| Mica, Phlogopite Block | LB | 206,064 |
| Mica, Phlogopite Splittings | LB | 932,000 |
| Molybdenum Disulphide | LB Mo | 0 |
| Molybdenum, Ferro | LB Mo | 0 |
| Nickel | ST Ni+Co. | 204,335 |
| Opium, Gum | LB | 0 |
| Opium, Salt | LB | 75,000 |
| Platinum Group Metals, Iridium | TrOz | 97,761 |
| Platinum Group Metals, Palladium | TrOz | 2,450,000 |
| Platinum Group Metals, Platinum | TrOz | 1,314,000 |
| Pyrethrum | LB | 377,851 |
| Quartz Crystals | LB | 0 |
| Quinidine | AvOz | 6,841,000 |
| Quinine | AvOz | 3,045,000 |
| Rubber | LT | 513,134 |
| Rutile | SDT | 173,928 |
| Sapphire and Ruby | KT | 0 |
| Shellac | LB | 8,529,000 |
| Silicon Carbide, Crude | ST | 306,628 |
| Silver (Fine) | TrOz | 0 |
| Talc, Steatite Block and Lump | ST | 104 |
| Tantalum Carbide Powder | LB Ta | 889,000 |
| Tantalum Metal | LB Ta | 1,650,000 |

| | | |
|---|-------|------------|
| Tantalum Minerals | LB Ta | 5,452,000 |
| Thorium Nitrate (ThO ₂) | ST | 418 |
| Tin | LT | 32,499 |
| Titanium Sponge | ST | 131,503 |
| Tungsten Carbide Powder | LB W | 12,845,000 |
| Tungsten, Ferro | LB W | 17,769,000 |
| Tungsten, Metal Powder | LB W | 3,290,000 |
| Tungsten, Ores and Concentrates | LB W | 8,823,000 |
| Vanadium, Ferro | ST V | 10,095 |
| Vanadium Pentoxide | ST V | 2,576 |
| Vegetable Tannin Extract, Chestnut | LT | 6,942 |
| Vegetable Tannin Extract, Quebracho | LT | 37,998 |
| Vegetable Tannin Extract, Wattle | LT | 20,208 |
| Zinc | ST | 1,313,000 |

ABBREVIATIONS

| | | | |
|-------|--------------------------------|-----------|--|
| AvOz | Avoirdupois Ounce | LDT | Long Dry Ton |
| FL | Flask (76-pound) | LT | Long Ton |
| KT | Carat | OZ | Ounce |
| LB | Pound | PC | Piece |
| LB Cb | Pounds of Contained Columbium | SDT | Short Dry Ton |
| LB Co | Pounds of Contained Cobalt | ST | Short Ton |
| LB Mo | Pounds of Contained Molybdenum | ST Ni+Co. | Short Tons of Contained Nickel plus Cobalt |
| LB Ta | Pounds of Contained Tantalum | ST V. | Short Tons of Contained Vanadium |
| LB W | Pounds of Contained Tungsten | TrOz | Troy Ounces |
| LCT | Long Calcined Ton | | |